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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,180	01/28/2004	Satoshi Nishikaji	742425-23	9852

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EXAMINER	
MCCREARY, LEONARD	
ART UNIT	**PAPER NUMBER**
3616	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/765,180	NISHIKAJI ET AL.	
	Examiner	Art Unit	
	Leonard J. McCreary, Jr.	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *4-6,9,12,18 and 21-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7,8,10,11,13-17,19,20,25 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/1/04, 1/28/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 4-6, 9, 12, 18, and 21-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8 February 2006.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 26 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites "said head-protection portion and said torso-protection portion are formed separately," and claim 26 recites "the head-protection portion and the torso-protection portion being formed separately," but the embodiment shown in figures 2 and 3 do not reflect this. The head and torso portions are separated, but they appear to be formed integrally.

4. Claim 25 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "type" renders the claim indefinite

because the claim includes elements not actually disclosed (those encompassed by "type"), thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 7, 10-11, and 19 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 5,803,485 to Acker et al. Acker discloses a gas bag lateral impact protective device comprising the following:

a. An inflatable airbag (Fig. 10) mounted within a seat back 47 of a seat for an occupant and arranged to inflate forward and between the occupant and a vehicle side body in the event of a side impact of the vehicle; an inflator 16 responsive to the side impact of the vehicle for generating gas to inflate said airbag, wherein said airbag comprises a head-protection portion 12 arranged to be located at a side of a head of the occupant and a torso-protection portion 14 arranged to be located at a side of at least a chest of the occupant in the inflated condition, and said head-protection portion and said torso-protection portion are

formed separately and configured such that a volume of said head-protection portion may be greater than that of said torso-protection portion at the time their inflation is completed (figure 1) (claim 1.)

b. The airbag is arranged to inflate forward from a side portion of the seat back 47, and a lower part of said head-protection portion 12 and an upper part of said torso-protection portion 14 are connected by a tether (figure 10, defined by seam line 17) such that a forward inflation-force of said torso-protection portion generated in the inflated condition is conveyed to said head-protection portion through the tether (column 4, lines 45-47) (claim 2.)

c. The airbag is arranged to inflate forward from a side portion of the seat back 47, and a lower part of said head-protection portion 12 and an upper part of said torso-protection portion 14 are connected by a tether (figure 10, defined by seam line 17) such that an upward inflation of said head-protection portion in the inflated condition is suppressed by said torso-protection portion through the tether (column 4, lines 45-47) (claim 3.)

d. An inflation assist device (figure 10, area defined by seam line 17) that promotes a forward movement of the inflation of said head-protection portion 12 and suppresses an upward movement thereof at the beginning of its inflation (column 4, lines 45-47) (claim 7.)

e. The inflator 16 is formed as a common one for supplying the gas to both of said head-protection portion 12 and said torso-protection portion 14, and there is provided a distributor 10 for distributing the gas generated by said common

inflator to said head-protection portion and said torso-protection portion (claim 10.)

f. The distributor 10 is of a pipe shape which is connected to said inflator 16 (claim 11.)

g. The head-protection portion 12, the torso-protection portion 14, the inflator 16 and the distributor 10 are disposed within the seat back 47 respectively, and the head-protection portion and the torso-protection portion are arranged to inflate forward from a side portion of the seat back (claim 19.)

Acker does not specify that the head-protection portion of the airbag is volumetrically larger than the torso-protecting portion, though Figure 9 shows a head-protecting portion that is larger than the torso-protection portion, and further, the figure shows in phantom the frames of a large and a small occupant, making clear that the head-protecting portion covers substantially the whole side of the occupant's head regardless of the occupant's body size as discussed in the summary of the applicant's specification. It would have been obvious to one of ordinary skill in the art at the time of invention to size the head-protecting portion larger than the torso-protecting portion so as to cover substantially the whole side of the occupant's head regardless of the occupant's body size.

7. Claim 8 and 13-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,803,485 to Acker et al. in view of U.S. 6,997,473 to Tanase et al. The disclosure of Acker is discussed above. Acker does not specify that the head-protection

portion and the torso-protection portion are configured so as to complete their inflation at substantially the same time or that the gas outlet free surface areas are regulate flow into the chambers independently. Tanase discloses a side airbag device comprising an upper and a lower torso-protection portion. Re claims 8 and 17, Tanase teaches that the upper chamber 525 and lower chamber 526 complete inflation at substantially the same time, as shown in the chart in Figure 27. It would have been obvious to one of ordinary skill in the art to modify the gas bag protective device of Acker to make the head-protecting portion and the torso-protecting portion complete inflation at substantially the same time as taught by Tanase so as to provide equal protection to the head and torso regions of an occupant.

8. Re claim 13, Tanase teaches the distributor 3116 adjusts an amount of gas blowing into an upper chamber 3113a and a lower chamber 3113b from the inflator 3115 respectively (column 10, lines 32-44.) Re claim 14, Tanase teaches the distributor 3116 comprises a first outlet opening 3116a formed in the upper chamber 3113a and a second outlet opening 3116b formed in the lower chamber 3113b, and the amount of gas blowing into the upper and lower chambers is adjusted by each of opening area of the first and second outlet openings (column 10, lines 32-44.) Re claim 15, Tanase teaches the distributor 3116 comprises a first outlet opening 3116a formed in the upper chamber 3113a and a second outlet opening 3116b formed in the lower chamber, and the amount of gas blowing into the upper and lower chambers is adjusted by the number of each of said first and second outlet openings formed (column 10, lines 32-

44.) Re claim 16, Tanase teaches the amount of gas blowing into the upper chamber and the lower chamber is adjusted such that the amount of gas blowing into one chamber is greater than that of gas blowing into the other chamber (column 10, lines 32-44.) It would have been obvious to one of ordinary skill in the art to modify the gas bag protection device of Acker to include a gas distributor with gas outlets of differing free surface areas – either by number of outlets or by size of outlets – as discussed by Tanase so as to independently tailor in a simple and desirable manner the inflation times and pressures of the individual chambers.

9. Claim 20 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,803,485 to Acker et al. in view of U.S. 6,062,594 to Asano et al. in further view of U.S. 6,378,895 to Brucker et al. The disclosure of Acker is discussed above. Acker does not teach the inflator is located in either one of the head-protection portion and the torso-protection portion, without being located in the other one, and the distributor connected to the inflator extends into the other one. Asano teaches an air bag for protecting a vehicle passenger from a side collision, the air bag 20 comprising an upper chamber 22 and a lower chamber 21, and an inflator 11 located in the lower chamber. Brucker discloses an inflatable protective cushion for side impact protection with a multiplicity of chambers wherein the inflator 22 is mounted remotely with a distributor 18 connected to the inflator. Brucker teaches the distributor achieves optimum pressure and volume distribution upon during inflation (column 1, lines 35-38.) It would have been obvious to one of ordinary skill in the art at the time of invention to modify the gas

bag protective device of Acker to include the gas generator within the lower chamber as taught by Asano so as to conserve space and eliminate the need for a generator housing, and further it would have been obvious to provide a gas distributor connected to the gas generator as taught by Brucker so as to achieve optimum pressure and volume distribution to the individual air bag chambers during inflation.

10. Claim 25 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,803,485 to Acker et al. in view of U.S. 6,378,896 to Sakakida et al. The disclosure of Acker is discussed above. Acker does not teach the use of his gas bag impact protection device in an open-top vehicle. Sakakida discloses a side air bag apparatus for an open-top vehicle (Fig. 1), the side air bag being mounted in the side of the seat back (Fig. 14.) It would have been obvious to one of ordinary skill in the art at the time of invention to use the gas bag protective device of Acker in an open-top vehicle as taught by Sakakida so as to provide lateral impact protection for the occupant when B-pillars or roof structure is absent from the vehicle.

11. Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,803,485 to Acker et al. in view of U.S. 6,554,314 to Uchiyama et al. and further in view of U.S. 6,997,473 to Tanase et al. Acker discloses a gas bag lateral impact protective device comprising: an inflatable airbag 12, 14 mounted within a seat back 47 of a seat for an occupant and arranged to inflate forward and between the occupant and a vehicle side body in the event of a side impact of the vehicle, the airbag comprising a

head-protection portion 12 arranged to be located at a side of a head of the occupant and a torso-protection portion 14 arranged to be located at a side of at least a chest of the occupant in the inflated condition, the head-protection portion and the torso-protection portion being formed separately (Fig. 9) and the head-protection portion is volumetrically larger than the torso-protection portion; an inflator 16 responsive to the side impact of the vehicle for generating gas to inflate said airbag, the inflator being formed as a common one for supplying the gas to both of said head-protection portion and said torso-protection portion; and a distributor 10 for distributing the gas generated by said inflator for said head-protection portion and said torso-protection portion, the distributor being of a pipe shape which is connected to said inflator. Acker does not teach the distributor is made of cloth which is integral with said inflatable airbag comprising said head-protection portion and said torso-protection portion, and an amount of gas blowing into said head-protection portion and said torso-protection portion is adjusted by said distributor such that the mount of gas blowing into said head-protection portion is greater than that of gas blowing into said torso-protection portion.

Uchiyama discloses a protective cushion for a vehicle occupant's head comprising multiple chambers 11, 12 and a distributor 20 is made of cloth which is integral with said inflatable airbag 1 (column 1, line 66 – column 2, line 4.)

Tanase teaches the amount of gas blowing into the upper chamber and the lower chamber is adjusted such that the amount of gas blowing into one chamber is greater than that of gas blowing into the other chamber (column 10, lines 32-44.)

It would have been obvious to one of ordinary skill in the art to modify the gas bag protection device of Acker to include a gas distributor with gas outlets of differing free surface areas – either by number of outlets or by size of outlets – as discussed by Tanase so as to independently tailor in a simple and desirable manner the inflation times and pressures of the individual chambers, and it would have been further obvious to make the distributor of cloth integral with the air bag to decrease the cost of manufacturing.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. 6,349,964 to Acker discloses a gas bag impact protection device with an inflator and distributor configured so that the gas outlet free surface areas regulate gas flow and pressure to different gas bag chambers.

U.S. 5,586,782 to Zimmerman et al. discloses a dual pressure side impact air bag with analogous air outlet configurations.

U.S. 2003/0160433 discloses an airbag apparatus comprising an airbag with an upper and a lower chamber; the inflator is contained in one chamber, and a distributor supplies inflation fluid to the second chamber; flow to the individual chambers is regulated by the free surface area of the distributor gas outlets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. McCreary, Jr. whose telephone number is 571-272-8766. The examiner can normally be reached on 0700-1700 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

L McCreary Jr

Leonard J. McCreary, Jr.
Examiner
Art Unit 3616

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Paul N. Dickson 3/4/06

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